

CLAIMS

1. A data transfer controller connecting a high-speed bus having a relatively high data transfer rate to a low-speed  
5 bus having a relatively low data transfer rate, the controller comprising:

an address register for storing an address allotted to a peripheral device connected to the low-speed bus, the stored address being referred to as a preset address;

10 a buffer for storing a data retrieved from the peripheral device based on the preset address, the retrieved data being referred to as prefetched data; and

15 a central controller for causing the prefetched data stored in the buffer to be outputted into the high-speed bus when a peripheral device address transmitted through the high-speed bus is identical to the preset address.

2. The data transfer controller according to claim 1, wherein the address register holds an address having  
20 relatively high access frequency.

3. The data transfer controller according to claim 1, wherein the high-speed bus and the low-speed bus are arranged within a computer.

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4. The data transfer controller according to claim 1, wherein the high-speed bus is arranged within a computer, the low-speed bus being a cable arranged outside of the

computer.

5. A method of transferring data between a high-speed bus having a relatively high data transfer rate and a low-speed  
5 bus having a relatively low data transfer rate, the method comprising the steps of:

          storing an address allotted to a peripheral device connected to the low-speed bus, the stored address being referred to as a preset address;

10          storing a data retrieved from the peripheral device based on the preset address, the retrieved data being referred to as prefetched data; and

          causing the stored prefetched data to be outputted into the high-speed bus when a peripheral device address  
15 transmitted through the high-speed bus is identical to the preset address.